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EXAMINER	
ATALA, JAMIE JO	

ART UNIT	PAPER NUMBER
2484	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/936,185	KELLY ET AL.	
	Examiner	Art Unit	
	JAMIE ATALA	2484	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 June 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date. _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 21, 2010 has been entered.

Response to Arguments

2. Applicant's arguments, filed October 15, 2009, with respect to Claim 1 have been fully considered and are persuasive. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection Dieterich et al (US 6,208,643) in view of Lenihan et al (US 6,169,843) in further view of Fujii et al (US 5,898,695) in further view of Miyazawa et al (US 6,542,518). In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Dieterich et al discloses a receiver that

receives information from a signal that further provides a timestamp generator to further provide packet arrival timestamp information regarding the signal; however fails to describe a packet detector that is configured to detect the program clock reference in regard to the signal. This limitation is taught by Nuber to provide the PCR value to be counted and provided back to the signal and thereby allowing a proper synchronization of the signal based on the program clock reference. Thereby the limitation of synchronizing the signal based on the clock reference provides a more effective manner of synchronization. So therefore, regarding the applicants arguments on page 2-4 regarding the examiner lack of providing obviousness the examiner asserts it would be obvious to use the clock reference signal in order to provider further synchronization of the signal.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 13-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Dieterich et al (US 6,208,643) in view of Nuber et al (US 5,703,877).

[claim 13]

In regard to claim 13, Dieterich et al discloses a system comprising:

- a receiver that is configured to receive a sequence of information signal packets, the received sequence including, at intervals of multiple signal packets, program clock reference information (Figure 1 system 100 includes a video encoder and for receiving encoded video as further described in Column 3 Lines 40-50),
- a timestamp generator that is configured to provide a packet arrival timestamp corresponding to each information signal packet (Figure 2 counter 230 as further described in Column 4 Lines 53+);
- a combiner that is configured to append the packet arrival timestamp to each corresponding information signal packet (however, fails to disclose
    - a packet detector that is configured to detect a program clock reference value in a clock referencing information signal packet that includes program clock reference information wherein the timestamp generator is configured to provide a system time start value based on the program clock reference value and a time difference between the clock referencing information signal packet and an initial information signal packet, and the combiner is configured to associate the system start time with the sequence of information packets

It is taught by Nuber et al to detect the packet arrival time based on the PCR value wherein the value is counted and fed by the feedback of the signal as further described in Column 9 Lines 13-40. Therefore, it would have been obvious to one of ordinary skill

at the time of the invention to use the receiving of data and providing a timestamp, as disclosed by Dieterich et al, and further incorporate a system that appends arrival packet time based on program clock reference, as taught by Nuber et al, in order to properly synchronize the system information.

[claim 14]

In regard to Claim 14, Dieterich et al a system wherein a writer that is configured to write the sequence of information packets with appended packet arrival timestamps and associated system start time to a recording medium (Column 4 Lines 32-40 describes the controller for writing the sequence of information packets).

[claim 15]

In regard to Claim 15, Dieterich et al discloses a system wherein the sequence of information packets correspond to a sequence of MPEG-encoded packets, and

the system start time is recorded as a segment attribute (Column 1 Lines 30-55 describes the use of MPEG streams within the system. Through the use of MPEG streams into the system it is known that I frames provide entry points into the MPEG data bitstream for random access of the data and thereby provides the entry point of the data described in the system).

[claim 16]

In regard to Claim 16, Dieterich et al discloses a system wherein the timestamp generator includes an oscillator, a system counter, operable coupled to the oscillator, that is configured to provide a local clock reference, a phase detector that is configured

to control an output of the oscillator based on a comparison of the local clock reference to the program clock reference value, and a packet timestamp generator, operable coupled to the output of the oscillator, that is configured to provide the packet arrival timestamps (Column 4 Lines 32+ describes the time stamp and detectors used through the system to provide timestamp generation).

[claim 17

In regard to Claims 17, Dieterich et al discloses a system comprising:

- a reader that is configured to read a sequence of information packets and an associated system start time, each packet of the sequence of information packets including a corresponding packet arrival timestamp (Column 4 Lines 32+ describes the hardware involved in the reading of information packets);
- a buffer that is configured to store the sequence of information packets, and a controller that is configured to control an output of the buffer to provide the sequence of information packets in a time sequence that is dependent upon the system start time and the packet arrival timestamps (Column 4 Lines 48+ describes the FIFO for storing the information of packets)
- a timestamp generator that is configured to provide a local timestamp for each information packet based on the system start time (Column 4

Lines 52+ describes the information configured for local timestamp) wherein,

- the controller is configured to provide the output of the buffer based on a comparison of the local timestamp and the packet arrival timestamp of each information packet (Column 4 Lines 52+ and Column 5 Lines 1-16 describes the comparison of timestamps); however, fails to disclose that some packet information could contain program clock reference value.

It is taught by Nuber et al to detect the packet arrival time based on the PCR value wherein the value is counted and fed by the feedback of the signal as further described in Column 9 Lines 13-40. Therefore, it would have been obvious to one of ordinary skill at the time of the invention to use the receiving of data and providing a timestamp, as disclosed by Dieterich et al, and further incorporate a system that appends arrival packet time based on program clock reference, as taught by Nuber et al, in order to properly synchronize the system information.

[claim 18]

In regard to Claim 18, Dieterich et al discloses a timestamp generator that is configured to provide a local timestamp for each information packet based on the system start time (Column 4 Lines 52+ describes the information configured for local timestamp) wherein the controller is configured to provide the output of the buffer based on a comparison of the local timestamp and packet arrival timestamp of each information packet (Column 4 Lines 52+ and Column 5 Lines 1-16 describes the comparison of timestamps).

[claim 19]

In regard to Claim 19, Dieterich et al discloses a demultiplexer, operable coupled to the controller and the timestamp generator, that is configured to extract the system start time, the program clock reference value, and the packet arrival timestamps from the sequence of information packets (Column 4 Lines 52+ describes the demultiplexing of information based on the timestamp data).

[claim 20]

In regard to Claims 20, Dieterich et al discloses a system comprising:

- an oscillator (Column 4 Lines 32+ describes the hardware involved in the reading of information packets);
- a system counter, operably coupled to the oscillator (Figure 6 shows the system controller that is coupled to the oscillator),
- a phase detector that is configured to control an output of the oscillator Column 9 Lines 15-45 describes the phase detection based on local clock);
- a packet timestamp generator, operable coupled to the output of the oscillator, that is configured to provide the local timestamps, wherein the controller is configured to set the system counter to an initial value corresponding to the system start time (Column 9 Lines 15-67 describes the packet timestamp generator to configure local timestamps); however, fails to disclose the data based on a

comparison of the local clock reference to the program clock reference value.

It is taught by Nuber et al to detect the packet arrival time based on the PCR value wherein the value is counted and fed by the feedback of the signal as further described in Column 9 Lines 13-40. Therefore, it would have been obvious to one of ordinary skill at the time of the invention to use the receiving of data and providing a timestamp, as disclosed by Dieterich et al, and further incorporate a system that appends arrival packet time based on program clock reference, as taught by Nuber et al, in order to properly synchronize the system information.

[claim 21]

In regard to Claim 21, Dieterich et al disclose a method wherein entry points includes I-frames in an MPEG sequence of encoded frames (Column 1 Lines 30-55 describes the use of MPEG streams within the system. Through the use of MPEG streams into the system it is known that I frames provide entry points into the MPEG data bitstream for random access of the data and thereby provides the entry point of the data described in the system).

4. Claims 1-5, 7-8, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dieterich et al (US 6,208,643) in view of Nuber et al (US 5,703,877) in further view of Fujii et al (US 5,898,695).

[claim 1]

In regard to Claim 1, Dieterich et al discloses a method of keeping a constant play back timing between a plurality of irregularly received signal packets comprising a sequence of A/V information, the sequence including Program Clock Reference the method acts of:

- determining the packet arrival time of each packet of a received sequence of information signal packets using a packet arrival time counter derived from the local System Time Counter (Column 2 Lines 45+ describes the determination of packet arrival time and furthermore described in Column 4 Lines 53+ describes the determination of time based on the arrival time counter);
- setting the packet arrival time counter at an arbitrary value before receiving a first information signal packet (Column 9 lines 65+ through Column 10 Lines 1-5 describes the setting of the packet arrival time counted); however, fails to disclose
    - calculating a System Time Counter start value (STC-start) by subtracting the number of counts of the local System Time Clock Counter (STC) subtracting this number from the Program Clock Reference (PCR) value to retrieve a System Time Counter start value (STC-start) and appending a Packet Arrival Timestamp (PAT) corresponding to the packet arrival time to each packet information
    - subtracting the number of counts from the Program Clock Reference

Nuber et al teaches a system for determining STC by subtracting counts from the PCR (Column 9 Lines 13-67). The system determines the PCR value through STC data received and thereby subtracts the value from the counter to provide the appropriate number of counts by the STC. Therefore, it would have been obvious to one of ordinary skill at the time of the invention to use the receiving of data and providing a timestamp, as disclosed by Dieterich et al, and further incorporate a system that appends arrival packet time based on program clock reference, as taught by Nuber et al, in order to properly synchronize the system information.

Dieterich et al in view of Nuber et al teaches a system wherein the STC provides information regarding start times of the packet; however fails to teach the determining of PAT of the signal packets. It is taught by Fujii et al the ability to determine the PAT of various information signals as seen in Figure 18 and further described in Column 11 Lines 10-37. The ability to determine and apply the PAT of each signal provides for a more efficient processing of data and data storage. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of generating timestamps, as disclosed by Dieterich et al in view of Nuber, and further teach the system to determine multiple PAT on various information signals, as disclosed by Fujii et al, to allow for the system to properly store and process the data into the system.

[claim 2]

In regard to Claim 2, Dieterich et al discloses a method according to claim 1, describes the method of generating time stamps; however, fails to disclose the received information signal packets with the appended Packet Arrival Time Stamps (PAT) are stored on a recording medium, wherein, in addition the System Time Counter start value (STC-start) is stored as an attribute of the stored sequence. Miyazawa discloses a system wherein the information corresponding to the PAT is received, stored, and used in determining the start value that is stored on the data stream as disclosed in Column 13 Lines 44+ through Column 14 Lines 16-47. The ability to use PAT for timestamp processing provides a more accurate determination of information of the data stream. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of generating timestamps, as disclosed by Dieterich et al, and further incorporate the use of PAT to determine time stamps, as disclosed by Cloutier et al.

[claim 3]

In regard to Claim 3, Dieterich et al discloses a method of reproducing a stored real time sequence of information signal packets (TS) comprising A/V information as previously recited in Claim 1, the method comprising:

- running a packet arrival time counter derived from a local System Time Counter (STC (Column 9 Lines 65+ through Column 10 lines 1-5 describes the running of the packet arrival time counter);

- locking the local System Time Counter (STC) to retrieved Program Clock Reference (PCR) information (Column 6 Lines 9+ describes the locking of the STC to retrieve the PCR information);
- temporally storing a number of retrieved information signal packets (Column 4 Lines 48-52 describes the storing of number that are retrieved from the information signal);

[claim 4]

In regard to Claim 4, Dieterich et al discloses a method according to claim 3, characterized by, inserting Program Clock Reference (PCR) information corresponding to the System Time Counter start value (STC-start) (Column 2 Lines 34-62 describes the inserting of the program clock reference information that corresponds to the system time counter).

[claim 5]

In regard to Claim 5, the claim limitations have been recited in Claim 3.

[claim 7]

In regard to Claim 7, Dieterich et al discloses an apparatus for recording a real time sequence of information signal packets (TS packet) comprising A/V information as previously recited in Claim 1,wherein on a record carrier, the serial sequence comprising at intervals of multiple information signal packets, Program Clock Reference (PCR) information for locking a local System Time Counter (STC) with the Program Clock Reference (PCR) information, the apparatus comprising:

- receiving means for receiving the information signal packets (Figure 1 shows the receiving means as described in Column 3 Lines 39-50);
- time stamp generating means for generating a time stamp corresponding to an arrival time of the information signal packets (Column 4 Lines 50+ describes the time stamp generating means for the arrival time of information signal packets);
- writing means for recording the generated time stamps and information signal packets on the record carrier, the time stamp generating means provided with a system time counter locked to the received program clock reference (PCR) information, the apparatus characterized in that, (Column 4 Lines 50+ describes the writing of the generated time stamps on the information signal packet);
- the time stamp generating means are adapted to generate time stamps (Column 5 Lines 1-16 describes the time stamp generator).

[claim 8]

In regard to Claim 8, Dieterich et al discloses an apparatus for reproducing a real time sequence of information signal packets (TS packet) comprising A/V information, such as MPEG2 Transport Stream Packets, recorded on a record carrier with the method as previously recited in Claim 1, the apparatus comprising:

- reading means for reading the information signal packets recorded on the record carrier (Figure 2 the microprocessor reads the information signal packets as further described in Column 4 Lines 10+);

- storing means for temporarily storing a number of information signal packets read from the record carrier (Figure 2 shows storing onto FIFO);
- time stamp generation means comprising a Packet Arrival Time counter derived from a local System Time Counter (STC) (Figure 2 shows time stamp generation as further described in Column 4 lines 50+);
- comparator means for comparing a stored time stamp of an information signal packet with the generated Packet Arrival Time value (Figure 3 shows the comparator as further described in Column 5 Lines 49+);
- outputting an information signal packet from the storing means when a Packet Arrival Time Counter value coincides with the corresponding time stamp (Figure 3 shows the outputting of information signal packet)

[claim 11]

In regard to Claim 11, Dieterich et al discloses a method wherein entry points includes I-frames in an MPEG sequence of encoded frames (Column 1 Lines 30-55 describes the use of MPEG streams within the system. Through the use of MPEG streams into the system it is known that I frames provide entry points into the MPEG data bitstream for random access of the data and thereby provides the entry point of the data described in the system).

[claim 12]

In regard to Claim 12, Dieterich et al discloses a method wherein entry points includes I-frames in an MPEG sequence of encoded frames (Column 1 Lines 30-55 describes

the use of MPEG streams within the system. Through the use of MPEG streams into the system it is known that I frames provide entry points into the MPEG data bitstream for random access of the data and thereby provides the entry point of the data described in the system).

5. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dieterich et al (US 6,208,643) in view of Nuber et al (US 5,703,877) in further view of Fujii et al (US 5,898,695) in further view of Miyazawa et al (US 6,542,518).

[claim 9]

In regard to Claim 9, Dieterich et al in view of Lenihan et al in further view of Fujii et al discloses a method of storing a real time sequence of information signal packets comprising A/V information, as disclosed in Claim 1, such as MPEG 2 Transport Stream Packets, on a record carrier, the sequence comprising Program Clock Reference (PCR) information for locking a local System Time Counter (STC), Presentation Time Stamp (PTS) information for determining the presentation time of the information comprised in the information signal packets (Column 2 Lines 17+), Decoding Time Stamp (DTS) information for determining the decoding time of the information comprised in the information signal packets, and Packet Identification (PID) mapping information, the method comprising adding mark points at specific entry points in the sequence, such as I-frames in MPEG2, characterized by, storing in addition to a mark point one or more of the following information entities: Program Cock Reference (PCR) information, Presentation Time Stamp (PTS) information, Decoding Time Stamp (DTS) information,

and Packet Identification (PID) mapping information (Figure 10 as further described in Column 15 Lines 53+ through Column 16 Lines 16-37); however, fails to disclose

- adding mark points at specific entry points in sequence storing the mark point and one or more the following information entities: PCR, PTS, DTS, and PID.

Miyazawa discloses a system wherein the information corresponding to the PAT is received, stored, and used in determining information regarding the timestamp as disclosed in Column 13 Lines 44+ through Column 14 Lines 16-67. The determining of timestamps provides a more accurate determination of information of the data stream. Furthermore, the determining of PAT and PCR provide efficient processing of data as the information is properly stored and processed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the method of generating timestamps, as disclosed by Dieterich et al in view of Nuber et al and further teach the system to determine multiple PAT on various information signals, as disclosed by Fujii et al, wherein the PAT is received, stored, and used to further provide the PCR to the stream, as taught by Miyazawa, in order to allow for the system to properly store and process the data into the system.

[claims 10]

In regard to Claim 10, Dieterich et al discloses a method wherein entry points includes I-frames in an MPEG sequence of encoded frames (Column 1 Lines 30-55 describes the use of MPEG streams within the system. Through the use of MPEG streams into the system it is known that I frames provide entry points into the MPEG data bitstream

for random access of the data and thereby provides the entry point of the data described in the system).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMIE ATALA whose telephone number is (571)272-7384. The examiner can normally be reached on Monday - Friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMIE ATALA/

Primary Examiner, Art Unit 2484